

XIV. *Some new species of Membracidæ.* By the Rev.  
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I HAVE for some time past been engaged in working out the *Membracidæ* for the *Biologia Centrali-Americana*, and in the course of my work I have received a large number of specimens from the Vienna Museum through the kindness of Dr. Ganglbauer and Herr Handlirsch, and from the Belgian Museum through the kindness of M. Severin; I am also much indebted for help to Dr. Aurivillius of the Stockholm Museum, but as the specimens he has sent me are exclusively Central American there are none that I can here notice; among the others, however, there are several interesting species which lie outside the scope of the *Biologia*, and a few of these I have described below.

At present there is great confusion with regard to certain of the genera of this very extensive and interesting group of insects, partly owing to the fact that Walker's work, though embracing a large number of genera and species, was very slight, and in some cases most confusing, as he places the most dissimilar insects under one genus, and partly because Stål, if in doubt, appears to have disregarded Walker's work, and redescribed the species.

*Tropidoscyta transiens*, sp. n.

Parva, brevis, testacea, aureo-pubescent, capite magno, antice rotundato, pronoto inæquali, antice in cornu brevissimum rotundatum fuscum producto, carinis duabus supra humeros valde elevatis, humeris ipsis prominulis, dorso remotius punctato, carina centrali instructo, a latere viso pone medium fortiter sinuatim depresso, apice fusco perobtusato; tegminibus apicem prothoracis longe superantibus, hyalinis, venis testaceis, maculisque quibusdam obscure brunneis; corpore subtus fusco, postice testaceo; pedibus testaceis.

A small short species, testaceous, with the metopidium, the very short bluntly rounded horn of pronotum, the apical portion of the two strong carinæ above shoulders, and the very blunt apex fuscous: the dorsum if viewed from the side is much depressed behind middle, and is extended into a short, blunt, very slightly deflexed apex; if viewed from the front the metopidium is large and broad, and appears to be furnished with five points formed by the anterior horn, the apex of the two suprahumeral carinæ and the slightly prominent shoulders; tegmina hyaline, with obscure dark markings, underside fuscous, hinderpart testaceous; legs testaceous. Long. cum tegm., 5 mm.; lat. int. hum., 3 mm.

*Hab.* Rio Janeiro. ♀. (Belgium Museum Collection.)

This species is closely allied to *Erecthia bicolor*, Walk., and also resembles *Tropidoscyta torva*, Stål (*Membracis torva*, Germ.); it is one of the species that complete the transition from *Membracis* to *Bolbonota*; no two genera can well be less alike than these, yet connecting forms occur which make it almost impossible to separate the intervening genera satisfactorily.

*Bolbonota rufo-notata*, sp. n.

Parva, nigra, pronoto carinato, a latere viso fere æquali, apice depresso, humeris, dorsoque plus minusve, rufo-ferrugineis; tegminibus pellucidis, basi nigrâ vel nigro-brunnæâ, venis fuscis; pedibus rufis vel ferrugineis.

A small species, variable in colour, black with the shoulders and more or less of the disc of the pronotum of a ferruginous red colour, sometimes the black and sometimes the red colour prevailing; the pronotum is carinate and uneven if viewed from above, but if viewed from the side the central carina is almost level to apex, where it is depressed; punctuation coarse but obscure; tegmina transparent, hyaline, with the base black or brownish-black, sometimes ferruginous internally, veins dark and conspicuous; legs red or ferruginous. Long. 2 mm.; lat. int. hum., 1½ mm.

*Hab.* New Granada (Nolken), (Vienna Museum Collection); five examples.

The species is allied to *B. pusio*, Germ., but the latter species is considerably larger, longer in proportion, quite black, and more coarsely punctured, with the dorsum more level and the apex differently formed; it is also closely akin to *B. inæqualis*, Fab., but, apart from the colour, it is much more finely punctured than that species and has the dorsum more level if viewed from the side.

*Bolbonota auro-sericea*, sp. n.

Opaca, dilute-testacea, pube aureo-sericeâ dense vestita ; capite pronotoque sat dense subtiliter punctatis, illo elongato sat angusto, hoc carinâ centrali integrâ, carinisque tribus utrinque supra humeros instructo, dorso a latere viso æquali, recto, mox ante apicem depresso, apice utrinque carinâ brevi obliquâ ; tegminibus flavis, ad medium dilutioribus, ad basim apicemque brunneo-variegatis ; corpore subtus pedibusque testaceis, pectore femoribusque ad partem infuscatis.

A rather large light testaceous species, thickly clothed with fine golden pubescence ; pronotum very finely punctured with the central keel and three abbreviated keels on each side above shoulders, and a small oblique keel on each side of apex, distinct, the rest of the surface even, dorsum almost straight, if viewed from the side, depressed just before apex ; tegmina yellow, dark before apex and near base ; underside and legs testaceous, chest and upper part of femora infuscate. Long. cum tegm., 5 mm. ; lat. int. hum., 3 mm.

*Hab.* North America. ♀. Coll. Signoret (Vienna Museum Collection).

As far as I know this is the only species of *Bolbonota* yet recorded from North America ; the genus is omitted in Dr. Goding's synopsis (*Trans. Am. Ent. Soc.*, xix., 253) ; it is a very distinct species.

*Triquetra obtusa*, sp. n.

Testacea, unicolor, pronoto tectiformi, sat fortiter ad latera subrugosius punctato, dorso recto antice altissimo in cornu haud producto, sed obtuse angulato, metopidio longo, fere recto, cornubus humeralibus porrectis, acutis, apice longo, acuto usque ad apicem tegminum extenso ; tegminibus totis hyalinis, venis dilute testaceis ; pedibus testaceis.

A large species of a unicolorous testaceous colour, with the pronotum tectiform, rather strongly and at the sides subrugosely punctured, with the dorsum continued in a straight line from apex (which is long, sharp, and acute) to the metopidium, which is then abruptly declivous in almost a straight line ; at the place where the dorsum and metopidium meet there is no trace of a horn as in the allied species ; tegmina entirely hyaline, with the veins light testaceous ; legs testaceous. Long. 14—15 mm. ; lat. int. corn. hum., 10½ mm.

*Hab.* New Granada (Nolken), (Vienna Museum Collection), three specimens; Ecuador (E. de Ville), (Belgium Museum Collection), four specimens.

This species may easily be distinguished from *T. grossa* (with which latter species *T. virgata* and *T. virescens* are synonymous) by the shape of the front part of the prothorax. I found the specimens above referred to among the unnamed material of the Stockholm and Vienna Museum Collections, and set on one side as a new species; it may possibly be referred to *Triquetra grossa* as a hornless variety, but I have examined a very large number of the last-named species, and have not found one specimen like *T. obtusa* among them.

*Potnia jansoni*, sp. n.

Testacea, capite sat magno, metopidio supra caput plicato, pronoto antice in cornu brevissimum, obtusum, rufescens late nigro-marginatum extenso, fortiter punctato, carinâ centrali, costisque utrinque quattuor vel quinque sat regularibus instructo, humeris leviter prominulis, lateribus sensim in processum longum extensis; tegminibus prothoracem vix superantibus testaceo-hyalinis, apice ipso fumoso; corpore subtus pedibusque testaceis.

Somewhat elongate for a *Potnia*, testaceous, with the pronotum strongly punctured, produced in front into a very short blunt horn, which is reddish, with the margins broadly black, the black colour being extended for a short distance on the dorsum, central keel and four or five regular costæ on each side well marked, apical process long, very slightly deflexed; tegmina produced very slightly beyond prothorax, testaceous hyaline with the apical margin smoky; legs and underside testaceous. Long. cum tegm., 8 mm.; lat. int. hum.,  $3\frac{1}{2}$  mm.

*Hab.* Demerara (Janson), ♂. (Belgium Museum Collection.)

*Potnia perobtusa*, sp. n.

Præcedenti affinis, sed minor, colore dilutius testaceo, pronoto antice minus porrecto et perobtuse angulato, processuque postico breviori et rectiori, apice magis obtuso, distinguendus.

Very like the preceding, but smaller and lighter coloured and less strongly punctured, with the pronotum very obtusely angled and not extended into a horn, and with the posterior process shorter and straighter; the tegmina are hyaline with the veins testaceous. Long. cum tegm., 7 mm.; lat. int. hum., 3 mm.

*Hab.* Rio Janeiro and Botafogo, Brazil; a fair series. (Belgium Museum Collection.)

Both these species have the facies of *Enchotype*, rather than of *Potnia*, the pronotum being distinctly and regularly ribbed; but the presence of four apical areas on the wings prevent their being classed with the former genus as at present constituted.

*Enchotype concinna*, sp. n.

Parvula, castanea, pronoto fortiter rugose punctato, linea centrali aliisque utrinque irregularibus utrinque elevatis, humeris a fronte viso obtuse prominulis, cornu antico fere recto, brevi, lato, acuto, unicarinato, apice postico longo, acuto; tegminibus hyalinis venis testaceis, apicem versus fuscis; pedibus testaceis.

A small dark castaneous species, with the pronotum coarsely and rugosely punctured, with the central line and others on each side elevated, and with the shoulders, if viewed from the front, obtusely prominent; anterior horn situated just above metopidium, short, broad, and almost upright, and sharp at apex; tegmina vitreous, with the veins testaceous towards base, darker towards apex; legs testaceous. Long. cum tegm. 6 mm., lat. int. hum. 4 mm.

*Hab.* Cuba (Mayr., Vienna Museum Collection).

This species is closely allied to *Enchotype fairmairei*, Stål. (*Hoplophora fairmairei*, Guér.), but differs in the shape of the prothoracic horn, which is much shorter, less porrect, and more upright, and also in the smaller size, less strong pubescence and darker venation of the tegmina.

*Enchotype* is a sub-genus of Stål, which is closely allied to *Potnia*, from which it is chiefly separated by the fact that the wings have three instead of four apical areas; it is very distinct from *Hoplophora*, of which it is by some authors reckoned as a sub-genus. The species above described is plainly an *Enchotype*, but it has besides the three apical alar veins a very minute fourth one on the exterior margin, which appears to be a thickening of a vein and to be quite distinct from the exterior area of *Potnia*.

*Hoplophora unicolor*, sp. n.

Longa, lata, parallela, capite et pronoto toto rufo-ferrugineo unicolori, illo parvo, hoc fortiter punctato, humeris prominulis,

dorso a latere viso fere recto, haud elevato, lineâ centrali et tribus vel quattuor aliis utrinque sat regularibus, elevatis, apice acuto; tegminibus elongatis, testaceo-hyalinis, immaculatis, venis totis testaceis; corpore subtus infuscato, pedibus rufo-testaceis.

A long, broad, parallel species, with the head and pronotum entirely rufo-ferruginous, unicolorous; head small, thorax very coarsely punctured, with a central raised line and three or four on each side which are almost regular and very little broken, apex sharply pointed; tegmina long, testaceo-hyaline, without any dark spots, and with all the veins testaceous; underside infuscate, legs rufo-testaceous. Length sine. tegm. 10 mm.; cum tegm. 15 mm.; lat. int. hum. 7 mm.

*Hab.* Colombia.

Two female specimens (Vienna Museum Collection). This species is related to *H. gigantea*, and is very closely allied to a new species which I have described from Mexico, under the name of *H. signoreti*.

*Hille ecuadorensis*, sp. n.

Elongata, brunnea, pronoto dense et fortiter subrugose punctato, carina centrali, lineisque quibusdam elevatis utrinque instructo, cornu dorsali lato obtuso tricarinato infuscato, in metopidium dorsumque sensim descendente; tegminibus brunneo-hyalinis, parte dimidiâ basali fortiter punctatâ, opacâ; corpore subtus nigro; femoribus infuscatis.

A small elongate castaneous-brown species, with the pronotum thickly and strongly and subrugosely punctured, with a central keel and four or five elevated lines on each side, and with an obtuse dorsal horn, which is tricarinate and infuscate and slopes gradually down to the metopidium and the dorsum; tegmina brownish hyaline, with the basal half strongly punctured; underside black. Long. 7 mm.; lat. int. hum. 3½ mm.

*Hab.* Ecuador (Coll. Signoret. Vienna Museum Collection).

*Telamona præalta*, sp. n.

Fusco-brunnea vel fusca, carinâ centrali prothoracis nigrâ, capite pronoto multo angustiori, illo fortiter punctato, humeris prominentibus, subauriculatis, ad latera rugose carinato, protuberantiâ dorsali maguâ, præaltâ, apice antice late rotundato, postice minus alto margine recto, angulo postico obtuso, ad basim utrinque fortiter impressâ; tegminibus externe hyalinis, ceteris, præcipue ad apicem, fumosis; corpore subtus pedibusque fusco-brunneis.

Dark fuscous brown, with the central carina of the pronotum and sometimes apical portion of the dorsal protuberance black; pronotum strongly punctured with a very large and elevated dorsal protuberance; this is strongly declivous behind and in front, and in front is broadly sinuate before metopidium; its apex is broad, rounded and elevated in front, less high and with a straight margin behind, and with the posterior angle obtusely rounded, but marked; tegmina hyaline externally, with the base and apex dark and the central portion smoky; underside and legs fuscous. Long. cum tegm., 9—10 mm.; lat., 5—6 mm.

*Hab.* Saguenay, Brazil (V. Huart); several specimens (Belgium Museum Collection).

*Telamona ruficarinata*, sp. n.

Sat angusta, capite nigro rufo-variegato, pronoto rugoso, fortiter punctato, brunneo-testaceo fusco-variegato, carinâ centrali rufâ a capite usque ad apicem extensâ, et carinis quibusdam inæqualibus et rugosis utrinque instructo, protuberantiâ dorsali paullo ante medium, magnâ, latâ, rotundatâ, cornubus anterioribus ad humeros latis, porrectis, subauritis, paullo reflexis, ad apicem rotundatis; tegminibus nigro testaceoque variegatis, venis rufescentibus, apicem versus dilutioribus; abdomine, basi segmentorum flavescenti excepta, nigro; pedibus testaceis, ad partem infuscatis.

Comparatively narrow, with the pronotum testaceous-brown variegated with black, and with a red carina running from just above head to apex; tegmina variegated with fuscous and testaceous and with the veins rufescent; abdomen black with the apex of the segments yellowish; chest black; legs testaceous, partly infuscate; prothorax rugose, strongly punctured, irregularly carinate on each side of the central line, with a large broad protuberance a little before middle, descending in front abruptly to the dorsum, and so leaving a flat and level space before metopidium; anterior horns porrect, broad, rounded at apex; apex of prothorax extending nearly to apex of tegmina. Long. cum tegm., 10 mm.; lat. int. hum, 5 mm.

*Hab.* Bogota (Coll. Signoret. Vienna Museum Collection); one male specimen.

*Lucilla intermedia*, sp. n.

Elongata, angusta, ab humeris pronoti leviter obtuse prominulis ad apicem sensim angustata, griseo-brunnea, capite sat magno, pronoto perobscure fusco-variegato, carinâ centrali, lineisque utrinque tribus vel quattuor, sat regularibus, instructo, dense et fortiter punctato, dorso a latere viso late et persensim ad medium

elevato postice depresso; tegminibus hyalinis ad basim externe punctatis, opacis, pedibus testaceis.

An elongate narrow species, of a griseous brown colour, with a few obscure fuscous markings on pronotum, which is almost unicolorous; head rather large, ocelli distinctly nearer to one another than to eyes, central keel strong and distinct throughout from just above head to apex, which reaches beyond or at least as far as apex of tegmina and is very gradually and bluntly pointed; the lateral carinae are fairly regular, three or four on each side; the dorsum if viewed from the side is very broadly and slightly elevated, depressed towards apex, and almost imperceptibly and broadly truncate to metopidium; tegmina hyaline, punctured towards base; legs testaceous. Long., 7 mm.; lat. int. hum., 3 mm.

*Hab.* Ecuador (Coll. Signoret. Vienna Museum Collection).

I have referred this species to Stål's genus *Lucilla*, as it is very closely allied to *Oxygonia viridula*, Fairm., which Stål mentions as his type of the genus. I am somewhat doubtful, however, as to the generic value of *Ennya* and *Lucilla*, and they cannot be separated from the *Hille* group on the character assigned by Stål (v., Ofv. af Kongl., Vet. Ak. Förh., 1867, No. 7, p. 555), "corio areola discoidali destituto," as a discoidal area is certainly sometimes present. *L. intermedia* differs from *L. viridula* in its more elongate form and in the shape of the dorsum, which is much flatter and highest behind middle, whereas in the last-named species it is highest before middle; the sculpture is also different. The two types of *Oxygonia viridula* in Signoret's collection, from the Vienna Museum, are before me. I believe, however, that they belong to two different species.

#### *Paradarnoides*, n. g.

Oblongus, capite longitudine latiori, fronte angustâ, ocellis inter se quam ab oculis distincte magis remotis, oculis prominentibus; pronoto ad humeros leviter obtuse prominulos latissimo, deinde sinuatim angustato et in processum longum, ad basim latum, postice subparallelum, a latere viso leviter deflexum, acutum, utrinque ad latera ab humeris usque ad apicem profunde impressum, producto, dorso a latere viso ad basim processus leviter sinuato, carina centrali per totum percurrenti; tegminibus apicem prothoracis vix superantibus, areis apicalibus quinque, discoidalibus tribus; alis areis apicalibus quattuor.



Oblong, subparallel, with the ocelli evidently further removed from one another than from eyes, which are prominent; pronotum with the shoulders, which are set far back, obtusely prominent, behind these gradually narrow, with a gentle sinuation and continued into a long process, which is strongly and broadly impressed at margins from shoulders to apex, and if viewed from the side is gradually deflexed and evidently carinate, the carina being continued to the frontal margin of the metopidium; tegmina slightly exceeding the apex of prothoracic process, with five apical and three discoidal areas, the areas being for the most part subequal and oblong; wings with four apical areas; legs rather slender.

This genus appears to be allied to *Darnoides* as represented by its type *Darnoides limbata*, but may be easily known by the position of the ocelli, the more prominent eyes, and the fact that the tegmina have three discoidal areas; the form, moreover, is more subparallel and less narrowed behind, and the shape and sculpture of the prothorax behind shoulders is very different.

*Paradarnoides severini*, sp. n.

Major, capite fusco, rugoso, pubescenti, metopidio rugosê punctato, fusco-testaceo, maculis duabus fuscis antice convergentibus, interdum fere deficientibus, pronoto pone humeros fortius punctato vittâ latâ fuscâ, deinde dilute testaceo, apice longo fusco; tegminibus fusco-hyalinis, ad basim punctatis, venis testaceis; corpore subtus fusco pubescenti; pedibus testaceis plus minusve infuscatis.

Head rugose, pubescent, fuscous, pronotum testaceous in front, then broadly fuscous behind shoulders, and then light testaceous, the apex being fuscous or reddish fuscous; on the metopidium there is a broad fuscous patch on each side of the central carina (which is testaceous); these however are sometimes confused or almost wanting; punctuation of prothorax rugose, strongest behind shoulders; tegmina fusco-hyaline, with the base more or less broadly fuscous and punctured, veins testaceous, underside fuscous, strongly pubescent in front; legs testaceous with the femora and tibiæ more or less infuscate. Long. cum tegm., 9 mm.; lat. int. hum.,  $3\frac{1}{2}$  mm.

*Hab.* Guadaloupe (Delauney), (Belgian Museum Collection); three female specimens.

There is a larva of this species in the Belgian Museum Collection; it is onisciform, broad and subparallel, but rather wider behind, with the front parts uneven, and the

abdominal segments furnished at the sides with broad oblong processes, fringed with setæ; the colour is dirty testaceous, but has probably considerably faded.

*Paradarnoides ignipes*, sp. n.

Præcedenti affinis, sed minor, colore nigro, metopidio longiori, processu pronoti ad medium albido-marginato, prothorace distinctius et minus rugose punctato, pedibusque miniatis facile distinguendus.

Allied to the preceding, but smaller, with the shoulders set very far back so that the metopidium is only slightly declivous; of a black colour, with the margins of the pronotum narrowly edged with white behind shoulders, and the apex ferruginous; the eyes are very prominent, and the front part of the head is clothed with golden pubescence; the pronotum is more closely and less rugosely punctured than in the preceding species; the tegmina have the base of the claws and the external margin of carina towards base black, and the veins large and fuscous; the underside is black with the front parts strongly pubescent, and the legs are bright scarlet, with the exception of the coxæ and tarsal claws, which are fuscous. Long. cum tegm.,  $7\frac{1}{2}$  mm. ; lat. int. hum., 3 mm.

*Hab.* Guadeloupe (Delauney), (Belgian Museum Collection); one male specimen.

It is just possible that this may be the male of the preceding, but I do not think that this can be the case, as the insect differs considerably in the structure of the front part of the pronotum, which in *P. ignipes* is much longer from the shoulders to the eyes than in *P. severini*; in general appearance they are quite distinct.